

L. L. McLANE.
 VENDING MACHINE.
 APPLICATION FILED JULY 22, 1913.

1,105,679.

Patented Aug. 4, 1914.

2 SHEETS—SHEET 1.

Fig 1

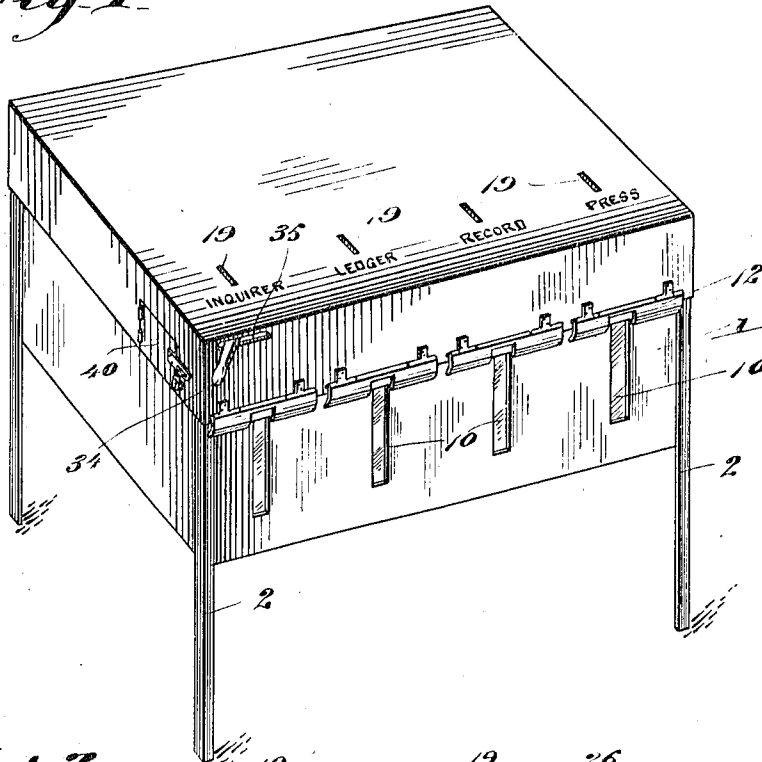
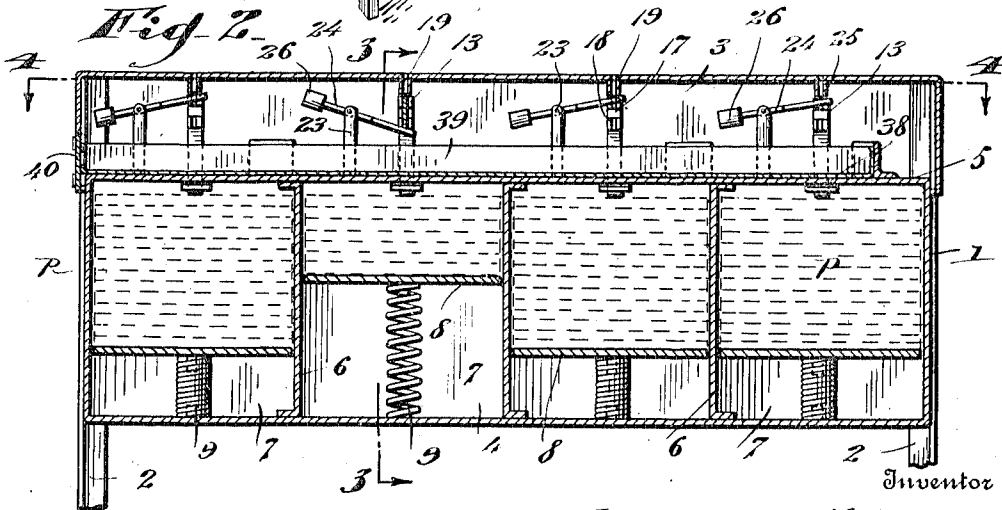


Fig 2



Inventor

Witnesses

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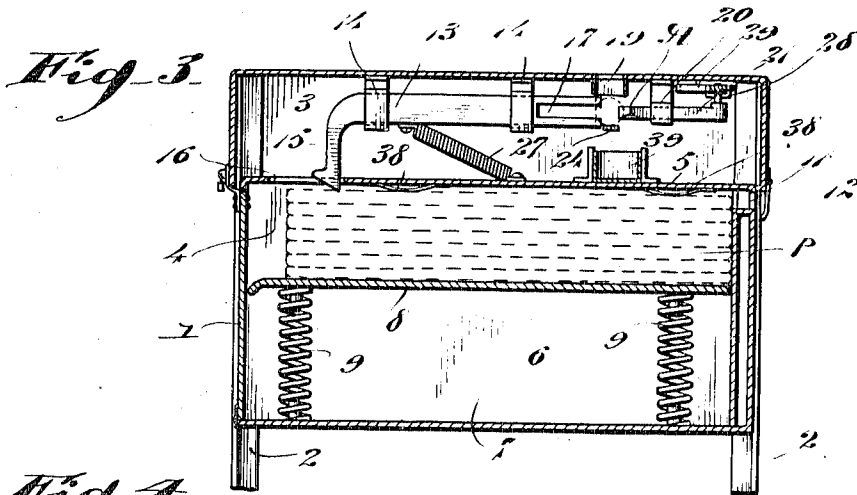
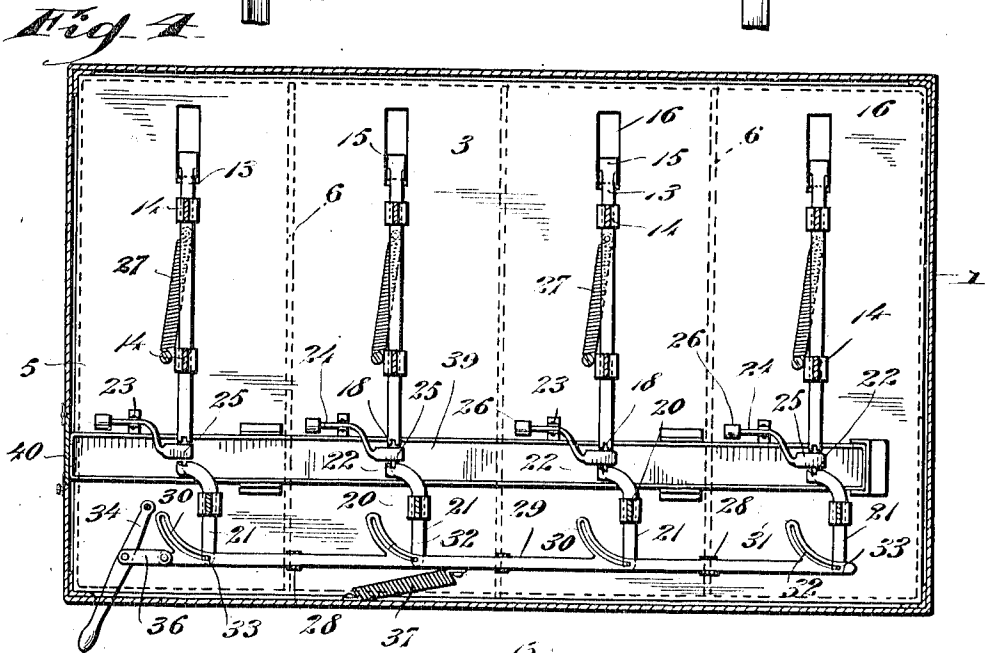
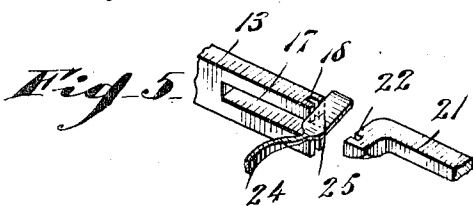
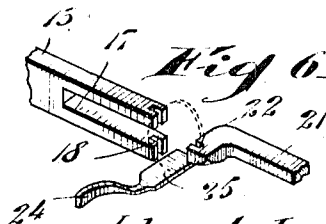
Attorney

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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

LLOYD L. McLANE, OF NEWARK, DELAWARE.

VENDING-MACHINE.

1,105,679.

Specification of Letters Patent.

Patented Aug. 4, 1914.

Application filed July 22, 1913. Serial No. 780,513.

To all whom it may concern:

Be it known that I, LLOYD L. McLANE, a citizen of the United States, residing at Newark, in the county of New Castle and State of Delaware, have invented new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to improvements in vending machines and has particular application to a coin controlled newspaper vending-machine.

In carrying out the present invention, it is my purpose to provide a vending machine which will be found especially useful for vending newspapers and whereby a number of different newspapers may be vended.

It is also my purpose to provide a machine of the class described which will embrace the desired features of simplicity, efficiency and durability and wherein the component parts will be so correlated and arranged as to reduce the possibility of derangement to a minimum.

Furthermore, I aim to provide a coin controlled newspaper vending machine by means of a plurality of delivery mechanisms, a number of different papers may be delivered to a customer simultaneously upon the application of the proper coins to the respective delivery mechanisms and wherein the idle delivery mechanisms will remain inactive during the operation of the active mechanism.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claims.

In the accompanying drawings, Figure 1 is a perspective view of a newspaper vending machine constructed in accordance with the present invention. Fig. 2 is a vertical sectional view therethrough. Fig. 3 is a vertical sectional view on the line 3—3 of Fig. 2. Fig. 4 is a horizontal sectional view on the line 4—4 of Fig. 2, and Figs. 5 and 6 are perspective views showing one of the delivery mechanisms as inactive and active respectively.

Referring now to the accompanying drawings in detail, the numeral 1 designates a casing preferably of box-like form and constructed of any suitable or desirable material, such casing being mounted upon legs 2. This casing 1 is divided into upper and

lower chambers 3 and 4 respectively by means of a horizontal partition 5, while the lower chamber is subdivided, by means of vertical partitions 6, into compartments 7 having the upper walls thereof formed by the horizontal partition 5. Each compartment 7 is designed to contain a number of newspapers P and is provided with a vertically movable follower 8 upon which the papers rest, such follower being pressed in an upward direction by means of coiled expansion springs 9, 9 interposed between the follower and the bottom wall of the respective compartment, the papers in each compartment being different from those in the other compartments so that various newspapers may be vended from the same machine. The front wall of each compartment 7 is equipped with a transparent window 10 whereby the papers within such compartment may be viewed, and with a delivery opening 11 above the window and at the upper end of the compartment, such delivery opening being normally closed by means of a vertically movable lid 12 hingedly connected to the front wall of the compartment above the delivery opening therein.

In the present instance, the delivery mechanism for each compartment is mounted within the upper chamber 3 and comprises a horizontal arm 13 slidably mounted within horizontally alining bearings 14, 14 depending from the top wall of the chamber 3 above the respective compartment, such arm having the rear end thereof equipped with a depending finger 15 projecting through a slot 16 formed in the top wall of the compartment adjacent to the rear end wall thereof. The forward end of each arm 13 is forked or bifurcated as at 17 and has the free ends of the limbs of such forked end formed with vertically alining slots 18 disposed immediately below and adjacent to one end of a coin slot 19 formed in the top wall of the chamber 3 immediately above the forward end of the lever. Slidably mounted within a guide 20 depending from the top wall of the chamber 3 and alining horizontally with the guides 14, 14 of the respective lever 13, is a rod 21 having the rear end thereof alining with the front end of the arm 13 and capable of entering the yoked end of such arm normally, such end of the rod being formed with a slot 22. Pivotaly mounted

upon a bracket 23 uprising from the partition 5 adjacent to the forward end of each arm 13 is a bar 24 carrying at one end a plate 25 disposed between the confronting ends of the rod 21 and the arm 13 and normally held above the slot in the respective arm by means of a weight 26 suitably connected to the free end of the rod.

The numeral 27 designates a coiled contractile spring having one end fastened to the respective arm 13 and the opposite end secured to the partition 5 and these springs act upon the arms to hold the fingers 15 normally at the forward ends of the slots 16 and in engagement with the topmost papers.

Slidably mounted within suitable guides 28 depending from the top wall of the upper chamber 3 adjacent to the front wall of the casing is an actuating bar 29 carrying rearwardly extending segments 30 formed with arcuate slots 32 receiving pins 33 carried by the forward ends of the bars 21. Pivottally connected to the upper wall of the chamber 3 is an operating lever 34 extending outwardly of the front wall of the casing by way of a slot 35 formed therein and connected to the adjacent end of the actuating bar 29 through the medium of a link 36. A coiled expansion spring 37 has one end connected to the bar 29 and the opposite end fastened to the front wall of the casing 1 and acts to hold the actuating bar normally in inactive position.

Normally, the arms 13 and finger 15 are in the positions illustrated in Figs. 3 and 4 and the actuating bar in the position shown in Fig. 4, while the plates 25 between the confronting ends of the arms and the rods 21 are normally elevated as illustrated in Fig. 5. When a customer desires to obtain a paper from the machine, the required coin is deposited within the proper slot 19 and drops onto the plate 25 with the effect to lower such plate against the action of the counterweight 26 so that the coin enters the slots or grooves 18 and 22 in the confronting ends of the arms 13 and the bar 21. This establishes, in effect, a connection between the respective sliding bar and the arm and by swinging the lever 34 about its fulcrum the actuating bar 29 is moved longitudinally within its bearings against the action of the spring 37 and the segments 31 slide the bars 21 inwardly. As the bars 21 move inwardly, the bar connected with the arm through the medium of the coin imparts movement to such arm and slides the same against the action of the respective spring 27 thereby carrying the finger 15 toward the rear end of the respective slot 16 and behind the topmost paper. The lever is now released and the springs 37 and 27 react to restore the bar 29 and the respective arm to normal position. As the arm moves forwardly, the finger

outwardly of the respective compartment by way of the delivery opening 11 so that the purchaser, by grasping the paper may withdraw the same from the machine. The remaining bars 21, that is, to say, the bars not affected, by the coin slide between the limbs of the forked ends of the respective arms and so permit the latter to remain inactive or in normal position. The top wall of each compartment is preferably equipped with bow-shaped leaf springs 38 so as to decrease the friction between the top wall of the compartment and the respective pile of papers.

From the foregoing description taken in connection with the accompanying drawings, the construction, mode of operation and manner of employing my invention will be readily apparent.

It will be seen that I have provided a newspaper vending machine whereby any desired number of different papers may be dispensed and wherein as many of such papers as is desired may be delivered to the purchaser simultaneously. Slidably mounted within suitable guides below the pans 25 is a coin receptacle 39 capable of removal from the respective chamber by way of a door 40 closing an opening in one end wall thereof.

While I have herein shown and described one preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claims without departing from the spirit of the invention.

I claim:

1. In a newspaper vending machine, a chamber designed to receive the papers to be vended and formed with a delivery opening in the front end wall thereof and a slot in the top wall adjacent to the rear end wall thereof, a second chamber surmounting said first chamber, a delivery arm slidably mounted within said second chamber, a finger formed on the rear end of said arm and projecting through said slot and normally resting upon the top paper, means for moving said arm rearwardly within said chamber, and means for drawing said arm downwardly in the rearward movement thereof whereby the finger will engage the rear end of the top paper, and then pulling said arm forwardly whereby the forward end of the paper will be projected through the delivery opening.

2. In a newspaper vending machine, a casing divided into superposed chambers, partitions dividing the lower chamber into compartments, each designed to receive the papers to be vended, a delivery arm slidably mounted within the upper chamber above each compartment, a finger formed on the

rear end of each arm and projecting into
the respective compartment and normally
resting upon the top of the papers therein,
means for moving each arm rearwardly
5 within said chamber, and means for draw-
ing each arm downwardly in the rearward
movement thereof whereby the finger will
engage the rear end of the paper and then
pulling said arm forwardly whereby the

forward end of the paper will be projected 10
out of the respective compartment.

In testimony whereof I affix my signature
in presence of two witnesses.

LLOYD L. McLANE.

Witnesses:

RODGER R. LOVETT,
GEO. D. KELLEY, Jr.